

Abstract of the Disclosure

A flame-retardant polyester fiber containing a phosphorus compound copolymerized polyester satisfying the following
5 formulas (1)-(3) and having a phosphorus atom content of 500-50,000 ppm:

$$\tan \delta_{\max} \geq 0.1740 \quad (\text{formula 1})$$

$$T\alpha - 3.77 \times \ln (\text{dtpf}) \leq 137.0 \quad (\text{formula 2})$$

$$1.331 \leq SG - \frac{\sqrt{\Delta n}}{8.64} \leq 1.345 \quad (\text{formula 3})$$

10 wherein $\tan \delta_{\max}$ is the maximum value of loss tangent in a dynamic viscoelasticity measurement, $T\alpha$ is a temperature at which loss tangent reaches the maximum, dtpf is single fiber fineness (dtex), SG is density (g/cm^3), and Δn is birefringence,
15 particularly a flame-retardant polyester fiber showing an L value of not less than 67 and a b value of not more than 10.00 as measured with a Hunter's color-difference meter, a flame-retardant polyester woven, knitted fabric using this flame-retardant polyester fiber at least in a part thereof, and a suede raised woven, knitted fabric which is a raised woven,
20 knitted fabric obtained by applying a raising treatment to this flame-retardant polyester woven, knitted fabric, which has a coefficient of friction of a surface of the woven and knitted fabric by a surface tester KES-FB4 of 0.200-0.300. By this constitution, a flame-retardant polyester fiber, a woven,
25 knitted fabric, a nonwoven fabric and a suede raised woven, knitted fabric superior in dyeing property and mechanical property such as abrasion resistance, heat stability and the like, can be provided, which have extremely fine whiteness, a soft feeling and flame retardancy stable over a long period of
30 time.